T-BEAM ENGINEERING CO.

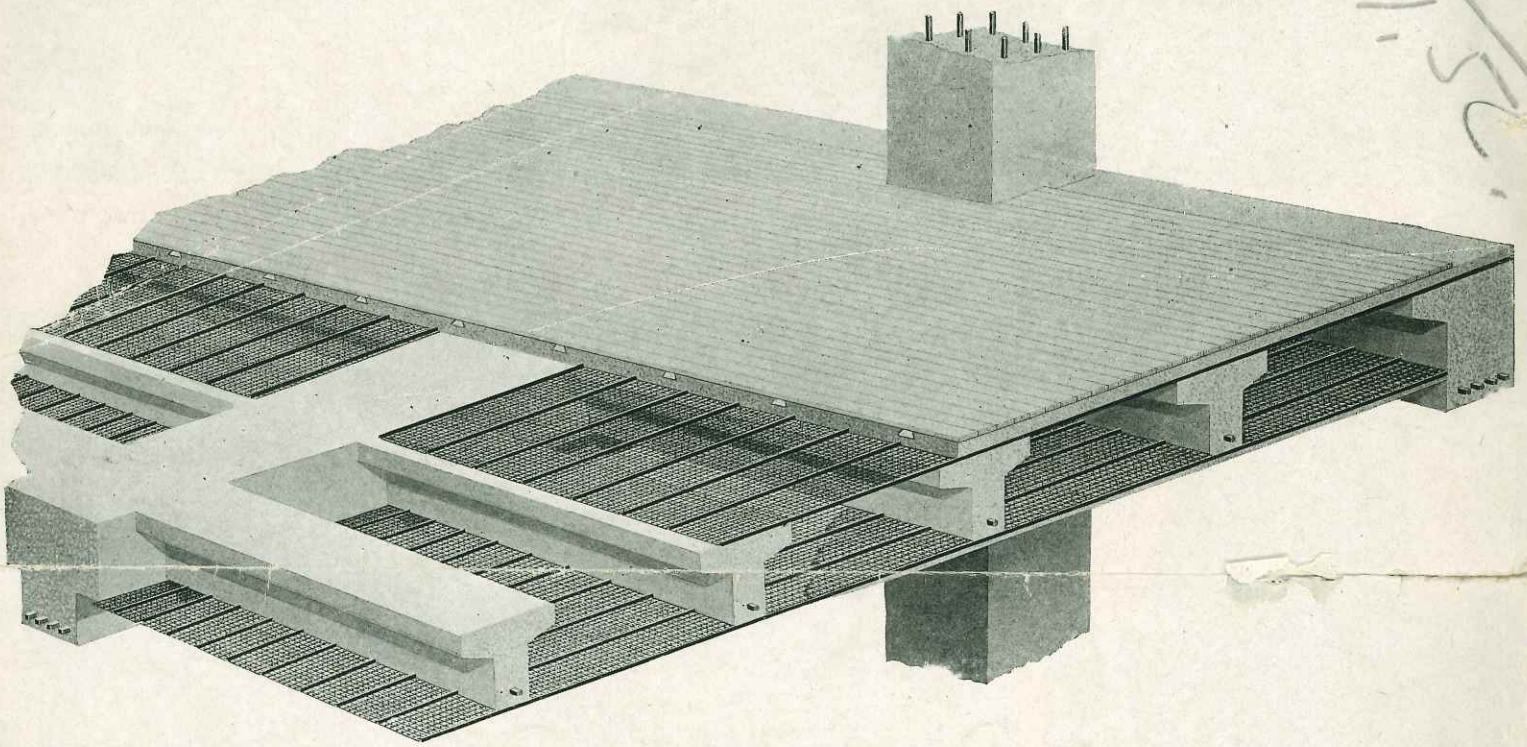
Washington, D. C.

24/28

The T-Beam Floor Construction

FOR

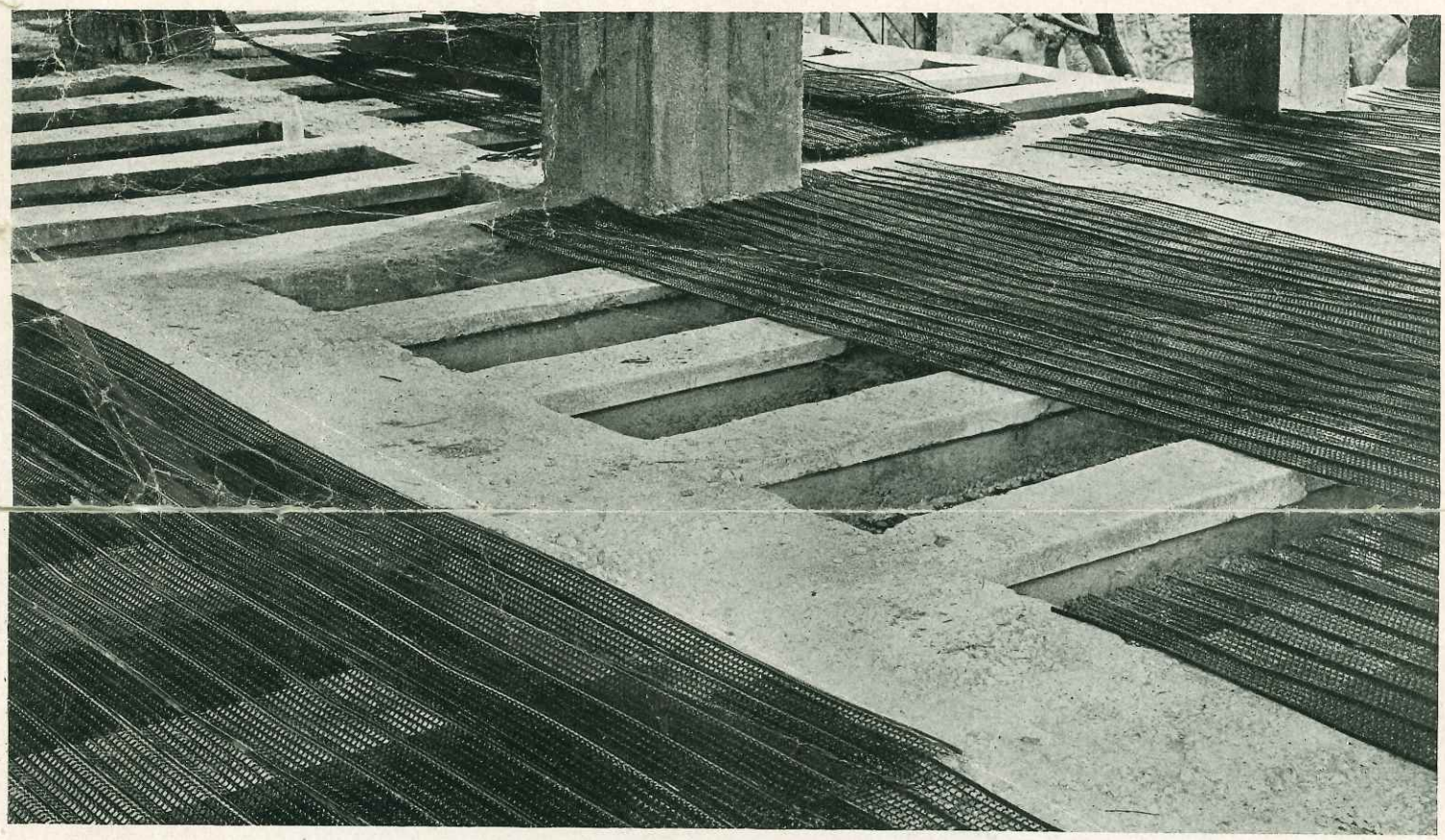
Office Buildings, Hotels,
Apartments, Hospitals,
Schools, Factories and
Warehouses



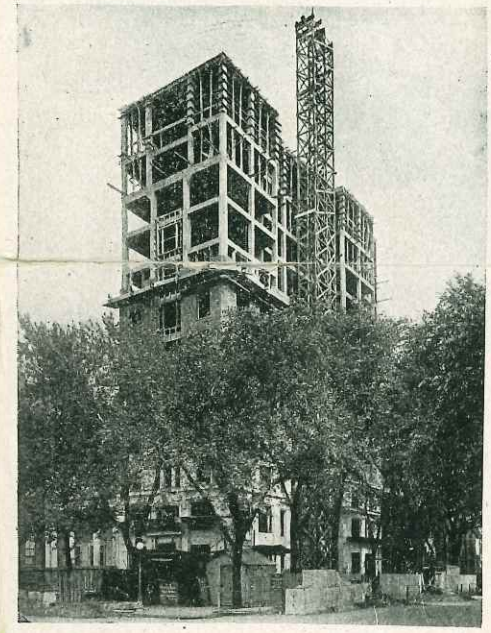
A Fireproof Floor Construction of reinforced concrete T-Beam joists formed by spacing members and side forms of wood. The forms are removed—upwardly. Practical, economical, quickly erected and complying with the standard principles of engineering design.

T-BEAM ENGINEERING CO.

319 UNION TRUST BLDG. WASHINGTON

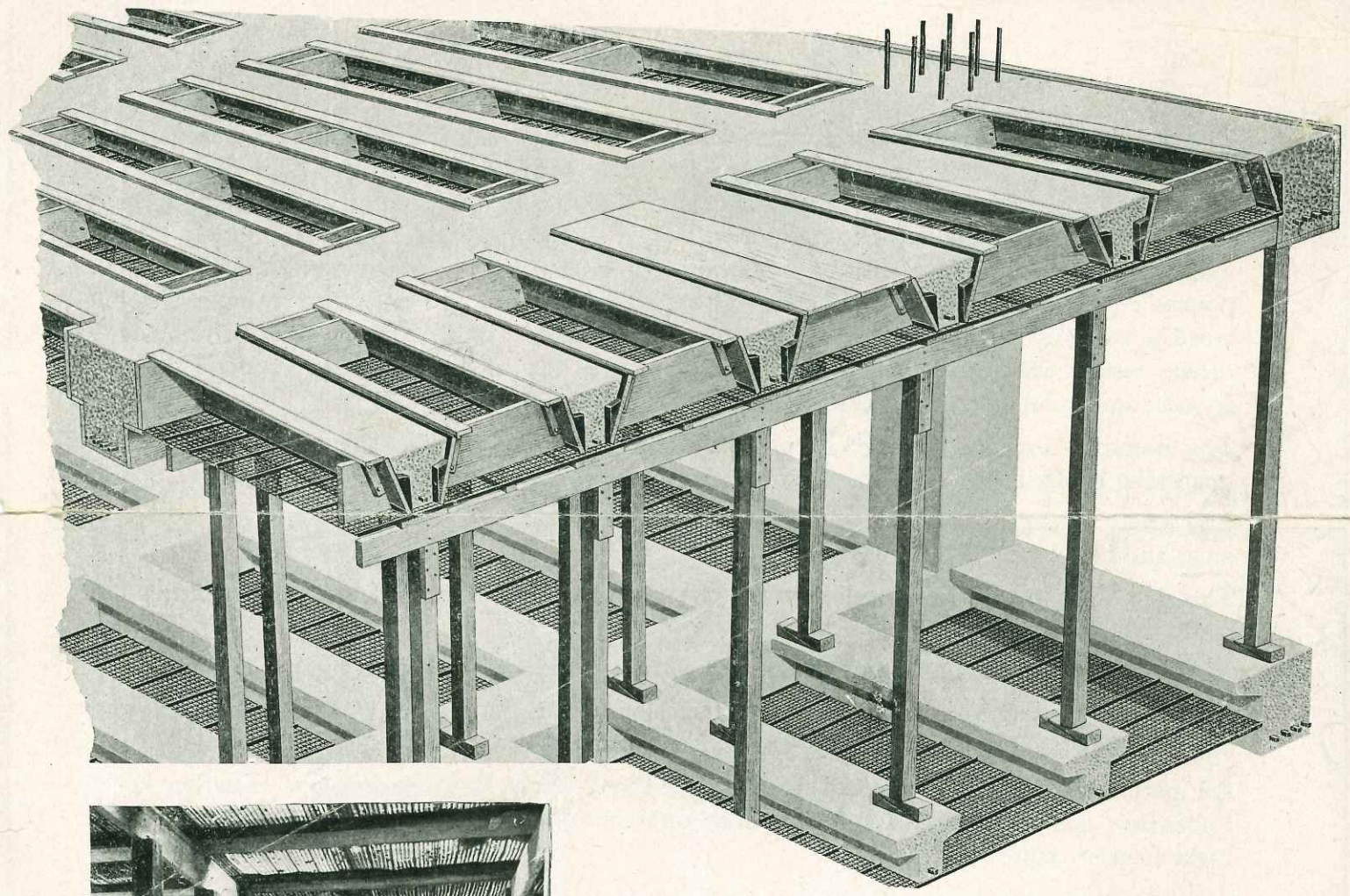


Laying expanded metal reinforcing and centering for slab



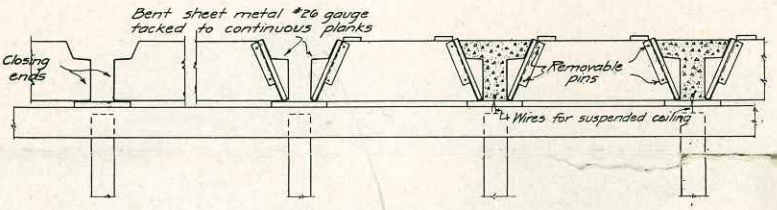
al Trade Commission Building,
Washington, D. C.
anley Simmons, Architect
l concrete T-Beam joists
inches center to center, 4
, 8 inches deep and 11 inches
flange (20 pounds per square
n all floors and roof. Built
te of five days per floor.

View of underside of joists after pouring overlying concrete slab. Note wire hangers for suspended ceiling

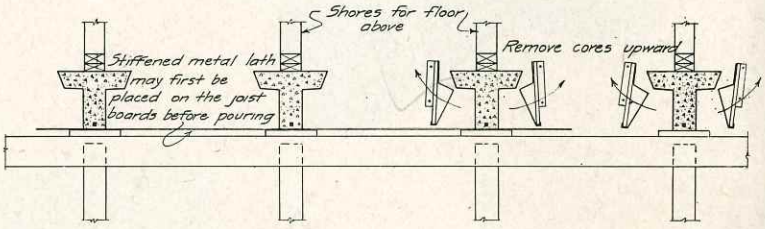


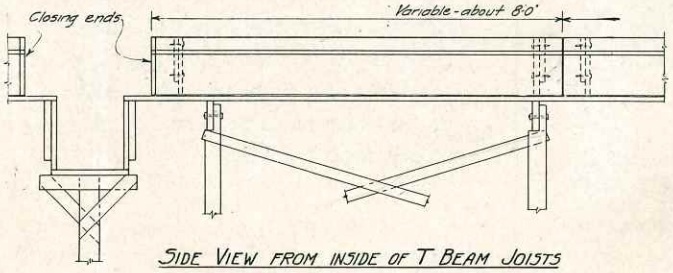
The shores are spaced directly over the joists allowing the spacing members and cores for the T-beams to be removed upwardly to the floors above and without disturbing the supports

False work below floor. Note metal lath ceiling in place on joist boards and simplicity of construction

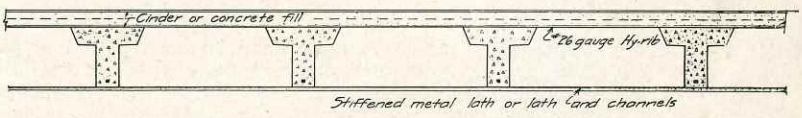


TYPICAL SECTION





SIDE VIEW FROM INSIDE OF T BEAM JOISTS



SECTION THRU FINISHED FLOOR

Patented and patents pending

DESCRIPTION

The T-Beam floor construction consists of rows of small reinforced concrete beams or joists of T shape, poured monolythically with their supporting girders. The T-Beams are formed by a series of spacing members and side pieces of wood to which are permanently secured bent sheet metal cores. (See drawing, page 3.) The ceiling lath may first be laid upon the joist boards, the forms then placed in position and the concrete poured to the desired height of joist. The spacing frames and cores are removed upwardly without disturbing the supporting false work. Stiffened expanded metal or other permanent centering is then laid over the top of the T-Beams covering the spaces; and upon this the cinder or concrete fill is poured.

This construction is especially adapted to office buildings, hotels, apartments, schools, hospitals, roofs, and for buildings for light manufacturing.

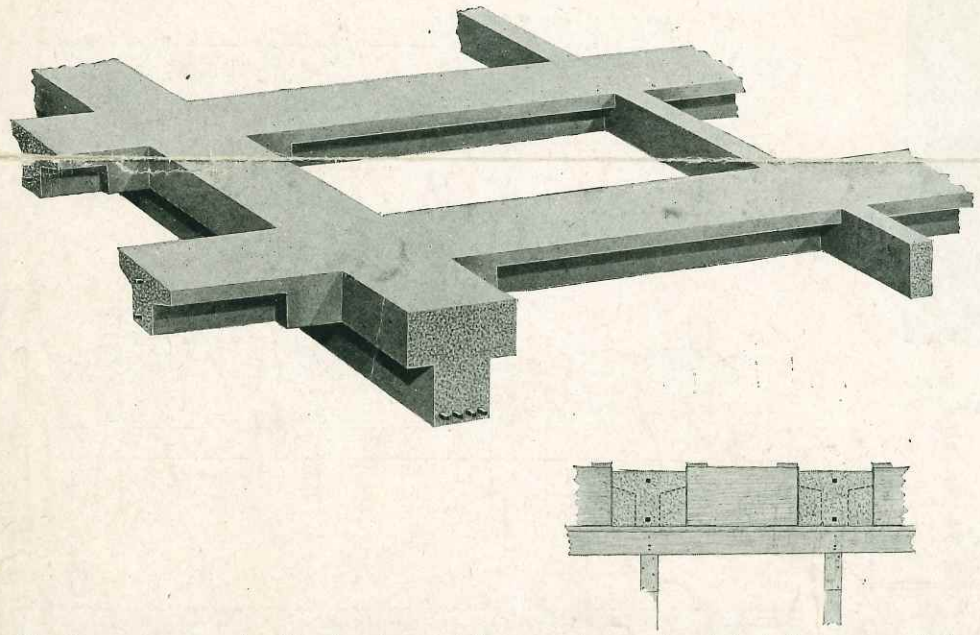
The great saving in dead weight of construction considerably reduces the amount of steel and concrete.

The size of beams, girders and columns can be made a minimum, increasing the head room and floor space.

The depth of footings and amount of excavation is reduced to a minimum.

Simple in construction, rapidly erected, flexible in widths and depths of joists to varying spans and loads, fireproof, soundproof and economical.

All patent rights are owned exclusively by the T-Beam Engineering Co. Further information and application for use of this construction on a royalty basis will be furnished upon request.



For long span construction bracing members can be constructed at the center of the span by placing two closing ends (see drawing page 3) close together and pouring concrete between them monolythically with the joists. To provide for the greater shear and bending moment near the supports the joists can be formed of rectangular section equal to the width of the flange

With but one set of forms the size of joists can be varied from four inches or more in width of stem and eleven inches or more in width of T flange—by increasing the spacing center to center. The depth can be varied from six inches plus two inches (thickness of T flange) to six inches plus four inches—by pouring the concrete to the desired height. For buildings of large floor areas the size and spacing of joists can be made especially to suit the requirements of the spans and loading.